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**An Archaeological Watching Brief
at
Tideway School, Southdown Road,
Newhaven, East Sussex.
LW/10/75**

Project No. CBAS0135

by
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Summary

An archaeological watching brief was maintained during the groundworks for a new ICT classroom at Tideway School, Newhaven on the 13th to 16th July 2010. The watching brief recorded a ditch terminal or pit which produced an interesting assemblage of Late Bronze Age pottery (c.900BC) and flintwork. A remnant buried soil also produced Late Bronze Age pottery (c.900BC) and flintwork, whilst a small amount of Mesolithic flintwork and LIA/RB pottery hinted at activity in other periods.

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1.0 Introduction

- 1.1 Chris Butler Archaeological Services was commissioned by the Hamson Partnership Ltd for Tideway School, Newhaven (The Client), to undertake an archaeological watching brief to record any archaeological remains that may be affected by the construction of a new ICT classroom and associated landscaping at the school (LW/10/75).
- 1.2 The location of the new classroom at Tideway School is centred on TQ 43870 00576 (Fig. 1). Tideway School is situated on the south-west side of Newhaven town, and is located at around 55m OD on a south-east facing slope which falls into a dry valley to the south-east of the site before rising again onto Castle Hill¹. Harbour Heights are situated to the south of the site, and the River Ouse is located approximately 1km to the east of the site. The school is surrounded by housing development to the west and north. The original Tideway School was built in the 1960's, but was devastated by a fire in 2005, and having been rebuilt (LW/2563), was reopened in February 2009. The site is within an Archaeological Notification Area (Fig. 2).
- 1.3 The site of the proposed ICT classroom is situated on the north-west side of the current school buildings, adjoining the Gym and Hall, and adjacent to the school car park (Fig. 3). The site is located is currently partly grassed, and partly a temporary building, which has already been demolished apart from the concrete raft foundation.
- 1.4 The geology of the site, according to the British Geological Survey (sheet 319/334), is Woolwich and Reading Beds with Tarrant Chalk and then Newhaven Chalk to the south and east of the site. The site is situated at the boundary between the Woolwich and Reading Beds and the Tarrant Chalk.
- 1.5 An archaeological desk-based assessment report, incorporating a written scheme of investigation, was initially prepared² in accordance with a specification drawn up by the ESCC Archaeology Section. This identified a high potential for activity at the site from the Mesolithic period through to the Roman period, which was likely to be damaged or destroyed by the development.
- 1.6 The archaeological watching brief in accordance with the written scheme of investigation took place between the 13th and the 16th July 2010, and was carried out by the author with the assistance of David Atkin and Annalie Seaman, and was monitored by the ESCC Archaeology Section.

¹ Johnson, C. 2000 *Archaeological & Historic Landscape Survey: Castle Hill, Newhaven, East Sussex*, Archaeology South-East Report 1247.

² Butler, C. 2010 *A Desk-based Assessment and Written Scheme of Investigation for a Watching Brief at Tideway School, Southdown Road, Newhaven, East Sussex*. CBAS

2.0 Historical and Archaeological Background (Fig. 4)

- 2.1 There has been a reasonable amount of archaeological work carried out in the vicinity of Tideway School (Fig. 5), with an evaluation excavation on the Harbour Heights development to the west of the site producing Mesolithic and Neolithic flintwork, Bronze Age pottery and Roman pottery and a pit (EES14083), whilst the 1973 construction of the adjacent gym at Tideway School produced Mesolithic flintwork and a Bronze Age cremation.
- 2.2 The earliest human activity in the area dates from the Palaeolithic period, with a handaxe that was found at Newhaven in 1949 (MES1780), although its exact provenance is unknown. Elsewhere on the South Downs it has suggested that this Palaeolithic material may derive from Clay-with-flints deposits³. During excavations in the town centre (MES1803/EES9047) an assemblage of possible Upper Palaeolithic flintwork was recovered, some of which could be re-fitted, suggesting that it was an in-situ assemblage⁴. Recent work at Peacehaven and elsewhere has hinted at the potential for Upper Palaeolithic material existing in outcrops of Woolwich and Reading Beds.
- 2.3 In 1973 during the construction of the adjacent gym at Tideway School, an assemblage of Mesolithic flintwork, including a number of tools, was found⁵. There is also other evidence for Mesolithic activity near to the site, with flintwork being found during the evaluation at Harbour Heights (MES16381/EES14083) just to the west of the site, and further Mesolithic flintwork found at Newhaven Fort (MES1807). Recent archaeological fieldwork undertaken at Peacehaven, to the west of the site produced an extensive assemblage of Mesolithic flintwork associated with a possible remnant Mesolithic buried soil⁶, whilst the excavation of a Bronze Age barrow at Friars Bay in 2008 also produced a large assemblage of Mesolithic flintwork⁷.
- 2.4 Neolithic flintwork has been found in the vicinity of the site, with three polished flint axes being found at Newhaven in the late 19th century (MES1789), and some Neolithic flintwork coming from the Harbour Heights evaluation (EES14083). Further afield, evidence for Early Neolithic activity has also been found at Rookery Hill, Bishopstone⁸ where there may have been a settlement, whilst Later Neolithic flintwork was found at Valley Dip⁹, and in the area of Seaford Head¹⁰, and between South Hill and Cuckmere Haven¹¹.

³ Wymer, J. 1999 *The Lower Palaeolithic Occupation of Britain*, Vol. 1, Wessex Archaeology & English Heritage, p171.

⁴ Bell, M. 1976 'The Excavation of an Early Romano-British site and Pleistocene Landforms at Newhaven, Sussex', *Sussex Archaeological Collections* 114, 218-305

⁵ Bell, M. G. 1974 'Tideway School, Newhaven', *Sussex Archaeological Collections* 112, 158.

⁶ Butler, C. 2008 'The Prehistoric Flintwork' in ASE Report

⁷ Birks, S. Forthcoming MSFAT Report

⁸ Bell, M. 1977 'Excavations at Bishopstone', *Sussex Archaeological Collections* 115.

⁹ Butler, C. 1996 'Later Prehistoric flintwork from Valley Dip, Seaford, East Sussex', *Sussex Archaeological Collections* 134, 219-224.

¹⁰ *Sussex Notes & Queries* 1950-3 Vol. 13, 193-7

¹¹ Holden, E.W. 1979 'Flint artefacts from Seaford', *Sussex Archaeological Collections* 117, 224-7.

- 2.5** During the 1973 construction of the gym at Tideway School, a Bronze Age cremation burial with fragments of a pottery vessel and fire-fractured flints was found (MES1807/EES9562). Bronze Age flintwork and pottery has also been found in the vicinity of the site, for example at Newhaven Fort (EES9432) and during the evaluation at the adjacent Harbour Heights (EES14083).
- 2.6** A Bronze Age burial mound (Barrow) is situated less than a kilometre to the south-west of the site, and is currently the subject of ongoing excavations to record it before it is lost to cliff erosion¹². The presence of the cremation burial at the site and numerous other barrows on the South Downs¹³, especially on the top of slopes or false-crested, suggests their presence is very likely at the site.
- 2.7** Iron Age settlements on the South Downs are relatively rare, although Iron Age pottery has been found at Castle Hill (MES1783) and at Newhaven Fort (EES9432), and on Harbour Heights (MES10293), whilst Late Iron Age pottery was also found in Newhaven town¹⁴.
- 2.8** A possible Roman building was discovered in Newhaven in the 19th century (MES1793), although its exact location is not known. Excavations in the town between 1971 & 1974 (EES9047) recorded five Roman buildings, including a possible granary, which were occupied in the 2nd century AD before being systematically demolished¹⁵. The presence of bath house nearby is hinted at by the finds recovered. Other Roman finds include a coin hoard of 73 coins found in 1920 (MES1795), isolated finds of a copper-alloy ring (MES10294) and a coin of 1st century AD date (MES10688), whilst the evaluation excavation at Harbour Heights found Roman pottery and a pit (EES14083).
- 2.9** Evidence for Anglo-Saxon settlement is difficult to find, with the discovery and excavation of larger settlements, such as Bishopstone¹⁶, being comparatively rare, as is the occasional discovery of isolated Saxon buildings, such as the Sunken Featured Building at Itford Farm to the north of Newhaven¹⁷. It is possible that the nearby Medieval settlements, including Meeching, may have had Saxon origins¹⁸. There is no evidence for Saxon activity close to the site, and the only evidence for Saxon activity nearby are four sherds of late Saxon pottery from Castle Hill (EES9432).

¹² Birks, S. Forthcoming MSFAT Report

¹³ Grinsell, L.V. 1934 'Sussex Barrows', *Sussex Archaeological Collections* **75**, 214-75.

¹⁴ Bell, M. 1976 'The Excavation of an Early Romano-British site and Pleistocene Landforms at Newhaven, Sussex', *Sussex Archaeological Collections* **114**, 218-305

¹⁵ Ibid

¹⁶ Bell, M. 1977 'Excavations at Bishopstone', *Sussex Archaeological Collections* **115**.

¹⁷ James, R. 2002 'The excavation of a Saxon *grubenhaus* at Itford Farm, Beddingham, East Sussex', *Sussex Archaeological Collections* **140**, 41-7.

¹⁸ Dodgson, J. McN. 1966 'The significance of the distribution of the English place-names *in-inga*, *-inga-* in south east England' *Medieval Archaeology*, **10**, 23.

- 2.10** The settlement now called Newhaven went under the name of Meeching during the Medieval period, but was not recorded in the Domesday Book. However, the first indication may be the granting of a church, mill and four acres of buried soil at ‘Mecinges’ in c.1095 by William de Warenne as an endowment to the Priory of St. Pancras at Lewes¹⁹.
- 2.11** The Medieval coastline was very different to that of today, with the mouth of the River Ouse located close to Hawks Brow to the south-east of the Medieval town of Seaford²⁰, which controlled access up river to Lewes, and seems to have been a settlement prior to 1089. Little evidence for Medieval settlement has been found in Newhaven, with only two Medieval pits, and a small assemblage of sherds of pottery coming from excavations in the town centre (EES9047). The parish church of St. Michael & All Saints has a Norman tower and apse (MES1805).
- 2.12** During the 16th century the original mouth of the River Ouse at Seaford became blocked, and a new course was opened up in its present location. Newhaven was first mentioned in 1566, and in 1587 it was reported that ‘ordnance at Newhaven are unmounted and of little worth’, and it was recommended that a bulwark for one demi-culverin and two sakers be raised. In 1596 additional guns were provided, however a 17th century map of Newhaven shows cannon barrels scattered on the foreshore²¹. In 1759 a battery was constructed on the east side of Castle Hill, overlooking the mouth of the river, comprising a parapet, powder magazine, store room and barrack, and was to be dismantled in 1817 except for two guns. In 1855 it became the ‘Upper Battery’ when a new ‘Town Battery’ was constructed at the base of the cliff to defend the harbour.
- 2.13** Newhaven Fort was constructed in 1864-5 on the east end of Castle Hill, overlooking the harbour entrance²². It was carefully designed to blend into the hill, and was the first military fortification in Britain to use concrete. On the south and east sides the Fort is protected by sheer cliffs, whilst on the remaining two sides a dry moat 40ft wide was constructed. The entrance was in the north-east corner, and was reached using a drawbridge over the ditch.
- 2.14** The 1838 Tithe map (Fig. 6) shows the site to be in open downburied soil, and the 1st Edition OS map of 1875 shows a similar situation (Fig. 7), although a number of old chalk pits are shown in the surrounding buried soilscape. The 2nd Edition OS map (1899) shows a similar situation, although there are some changes in field boundaries, and the large Meeching quarry is encroaching into the area on the east side (Fig. 8).

¹⁹ Salzman, L.F. ed 1932 *The Chartulary of the priory of St. Pancras of Lewes*, Sussex Record Society 38, 21.

²⁰ Woodcock, A. 2003 ‘The Archaeological implications of Coastal Change in Sussex’ in Rudling, D. (Ed) *The Archaeology of Sussex to AD2000*, Kings Lynn, Heritage Marketing & Publications Ltd,

²¹ ESRO PDA 426/3

²² Baldock, P. 2006 *Newhaven Fort*, Norwich, Jarrold Publishing.

- 2.15** By the time of the 3rd Edition OS map (1911) there has been little change, although two tracks now enter the site on the north-west side (Fig. 9). On the 4th Edition OS map (1938) there has been substantial development on the north and west sides of the site, with a layout of roads as a precursor to the proposed residential development of this area. The first plots can be seen, and one or two already have properties constructed on them (Fig. 10).
- 2.16** During the Second World War, Newhaven was put into a state of defence, and a large number of buildings were located to the north of the Fort including six living huts, a guardhouse, cookhouse, latrines and ablutions adding to the hospital and other buildings, built during the 1860's, and a Drill Hall/Gymnasium built prior to 1928²³.
- 2.17** In 1941 work started on a Coastal Battery to the west of the Fort. It was completed in 1943 and comprised three 6" BL Mk 24 guns, a battery plotting room and another unidentified building. The battery was defended by a number of machine gun posts, a spigot mortar and a 20mm anti-aircraft gun, and was manned by 160 Coast Battery of 521 Coast Regiment, who had their Headquarters at Newhaven Fort. A Type 25 pillbox (now removed) was located further west along the cliffs towards Harbour Heights.
- 2.18** An aerial photograph of 1947 shows a similar situation, with nothing of note within the area of the site. Further housing development is encroaching from the east, and the naval oil tanks (MES7563) can be seen in the Meeching Quarry (Fig. 11).
- 2.19** The school was built in the 1960's, and is shown on OS maps of the later 1960's as Newhaven County secondary school. Maps of the 1970's show it fully built, with gymnasium, added in 1973, on the west side of the main building. The area of the current development is outside the school grounds at this time, and appears to be open scrub downland.
- 2.20** An aerial photograph of 1999 shows the new hall with the area of the site grassed, and the recently demolished wooden shed in the south-east corner of the site between the hall and gym. Apart from this there are no obvious impacts on the site. In 2005 the school was devastated by a fire and having been rebuilt, was reopened in February 2009. Large parts of the original school were completely rebuilt, and other parts were modernised and integrated into a single complex. The school was made up of a central block and six linked accommodation blocks (A-F), between one and four storeys high. Blocks D and E were refurbished and joined together and blocks A, B, C and F were demolished. Block C was re-built and linked to Block D. A new building was constructed providing hall, kitchen, library, administration areas and front entrance, and links the remaining buildings together²⁴.

²³ Johnson, C. 2000 *Archaeological & Historic Landscape Survey: Castle Hill, Newhaven, East Sussex*, Archaeology South-East Report 1247.

²⁴ <http://www.eastsussex.gov.uk/educationandlearning/schools/development/default1.htm>

3.0 Archaeological Methodology

- 3.1** A watching brief maintained on the site from the 13th to the 16th July 2010 during the groundworks associated with the reduction and the excavation of the footings for the construction of the new ICT classroom at the school (Fig. 3). This initially involved the removal of a concrete raft at the southern end of the site and a path running along the eastern side. This was followed by a reduction of the ground level over the footprint of the building (18m x 8m) by up to a depth of 500mm over the western side of the site, and c.400mm over the eastern side of the site.
- 3.2** The footings described three sides of a rectangle (Fig. 12), with the western footing trench being excavated to a depth of 2.1m. The northern and eastern footing trenches were shallower with a depth of 1.4m. The width of all the trenches was 600mm. All the excavations were carried out using a 5 tonne 360° tracked digger with a 600mm toothless bucket. The spoil was piled up on the edge of the site using a dumper truck and then it was later removed from the site by a grab lorry.
- 3.3** Before the spoil was removed from the site it was visually inspected for artefacts, and a Precision Gold metal detector was used to scan the spoil. The metal detector was also used to scan the excavated surfaces and features discovered at various times throughout the watching brief.
- 3.4** The machined surface at the south end of the site, within the building footprint, was then cleaned back using hand tools to establish the extent and character of possible features revealed during the machine strip and footing trench excavation.
- 3.5** All archaeological deposits, features and finds were excavated and recorded according to accepted professional standards using context record sheets. Deposit colours were recorded by visual inspection and not by reference to a Munsell colour chart.
- 3.6** A temporary bench mark (50m Site OD) was established on the north gate post of the school and was transferred to the site. None of the local Bench Marks could be located at the time of the watching brief.
- 3.7** A full photographic record of the work was kept as appropriate and will form part of the site archive. The archive is presently held by Chris Butler Archaeological Services Ltd and will be offered to a suitable local museum on completion of the project. A site reference of TSN 10 has been allocated.

4.0 Results

- 4.1** In the area of reduction three layers were apparent; Context **1** was a layer of up to 300mm thick of topsoil. This was a mid greyish-brown silty clay loam with a firm consistence. This layer had inclusions of sub-angular flint pieces up to 30mm (<1%), ceramic building material (1%) and small pebbles (1%). The artefacts recovered from this layer were of 20th century ceramic building material (CBM), metal and glass, none of which was retained.
- 4.2** Below Context **1** was Context **2**, which was a layer of orangey-brown sandy silty clay with a thickness of up to 400mm. This layer had a very firm consistence at the western side of the site, but was not as firm at the eastern side of the site. The inclusions in this layer were of sub-angular flint pieces up to 120mm (1%), small chalk pieces and flecking (<1%) and manganese panning (<1%). The manganese panning was only noted in irregular patches at the far southern end of the site.
- 4.3** No difference in the matrix of this context could be discerned during the excavation however the mixture of artefacts, comprising pottery and CBM of 19th and 20th century date, and prehistoric flintwork and fire-cracked flint, suggests that the upper part of this context had become contaminated with later material. It was noticeable that the more recent artefacts had come from the upper part of this context and the prehistoric material predominantly from the lower part. Ditch **7** could also be seen in section cutting through Context **2**, which appears to confirm that Context **2** should be allocated a prehistoric date.
- 4.4** Context **6** was below Context **2**, and was the natural silty clay of the Woolwich and Reading Beds which had a firm consistence. The colour of the natural was orange with occasional patches of grey. This layer was not fully excavated and no artefacts were recovered from it. There were no inclusions noted, however, in the western footing trench there were areas of bright orange sand.
- 4.5** Context **3** was 300mm thick layer of pink MOT, which was only apparent at the eastern edge of the site, and had been used for the levelling of the ground for the laying of the tarmac path that had run along the eastern edge of the site prior to the development.
- 4.6** Context **4** was a shallow scoop cut into Context **2**, situated in the north-eastern corner of the reduced area (Fig. 12). The feature was sub-circular in plan with a diameter of 500mm, and was 150mm deep at its deepest point (Fig. 13; Section 1). The break of slope at the top of the feature was very gentle with very shallow sloping sides. The break of slope at the bottom of the feature was very gradual, leading into a dished bottom.

- 4.7** Context **5** was the fill of Context **4**, and was a mid brownish-grey sandy clay with a loose consistence. The fill contained inclusions of sub-angular flint pieces up to 30mm (<1%). Artefacts recovered from the fill comprised modern material (sweet wrappers, plastic etc), none of which was retained.
- 4.8** Context **7** was a cut first noted in the eastern footing trench (Fig. 12). The feature cut through Context **2** and into Context **6**, and was initially only visible as a thin layer of manganese at the edge of the cut. The cut described a pit or possibly the terminus of a ditch, having a width at the top of 0.6m (Fig. 13; Section 2). The break of slope at the top of the feature was very indistinct but appeared to be gradual, with steeply sloping sides. The break of slope at the bottom of the feature was gradual with a slightly dished bottom; the shape of the feature was in profile 'U' shaped.
- 4.9** During the excavation of the north-west quadrant of Context **7** it was noted that the western side of the feature was much steeper than the north and south sides (Fig. 13; Section 3). This suggests that the feature was more likely the terminus of a ditch which was on an east west alignment. Unfortunately it was not possible to excavate the eastern side of Ditch **7** as this was outside of the footprint of the development, and beyond this area it had probably been truncated away by the construction of the gymnasium.
- 4.10** Context **8** was initially allocated to the fill of Context **7**, and when first discovered was thought to be the only fill. Context **8** was described as a dark orange-brown silty clay with sub-angular flint pieces to 40mm (1%), manganese (<1%) and sandstone pieces to 40mm (<1%). However, on closer examination of the fill of the north-west quadrant, after it had weathered-out overnight, it was apparent that there were actually three separate fills. These were allocated Contexts **10**, **11** and **12**.
- 4.11** Context **10** was the upper fill of the feature, and was a mid brown silty clay with a firm consistence and had a thickness of 500mm. The inclusions in this fill were of chalk flecking (<1%) and sub-angular flint pieces up to 40mm (1%). The artefacts recovered from this fill were of prehistoric pottery dating to the Later Bronze Age (c. 900BC), and worked flint. Interestingly this layer conformed to the same stratigraphic horizon as Context **2**, and may have been disturbed by later activity such as ploughing, although there were no intrusive artefacts.
- 4.12** Below Context **10** was Context **11**, which was a mid orange-brown silty clay with a firm consistence. Context **11** was up to 400mm thick and had inclusions of sub-angular flint pieces up to 40mm (1%) and manganese (<1%). The artefacts recovered from this fill were of prehistoric pottery and worked flint. The pottery dated to the Later Bronze Age (c. 900BC), apart from a single intrusive Late Iron Age/Early Romano-British sherd.

- 4.13** Below Context **11** was Context **12**, which was the primary fill of Ditch **7**. This fill was a mid greyish orange-brown mottled silty clay with a firm consistence, and was up to 400mm deep. The inclusions were of manganese (1%), sub-angular flint pieces up to 40mm (<1%) and rare beach cobbles (<1%). Artefacts recovered from this fill were of prehistoric pottery dating to the Later Bronze Age (c. 900BC), fire cracked flint and worked flint.
- 4.14** The area within the interior of the building footprint at its south end was cleaned back to determine the extent and character of the feature(s). This clean up layer was allocated Context **9**, and was a orange-brown silty clay with a firm to very firm consistence, with inclusions of sub-angular flint pieces up to 40mm (1%) and manganese (1%). Artefacts recovered from this layer were of prehistoric pottery dating to the Later Bronze Age (c. 900BC), apart from a single intrusive Late Iron Age/Early Romano-British sherd, worked flint and fire cracked flint.
- 4.15** Context **13** was allocated to a number of irregularly-shaped patches of manganese rich soil at the southern end of the site below Context **9** (Fig. 12). A 1m wide slot was excavated through these patches and revealed that they were very shallow with a depth of up to 100mm (Fig. 13; Section 4). The colour of the soil in this feature was a mid brown, but slightly darker to the surrounding soil of Contexts **2/9**.
- 4.16** Context **13** comprised a silty clay with a firm consistence, and had inclusions of manganese (5%) and sub angular up to 40mm (1%). Artefacts recovered from this context were of prehistoric pottery dating to the Later Bronze Age (c. 900BC), worked flint and fire cracked flint. This context was interpreted as a remnant prehistoric buried soil.
- 4.17** Apart from modern services, no other archaeological features or deposits were noted during the watching brief.

5.0 The Finds.

5.0.1 The archaeological work recovered a small but significant assemblage of finds from the site. The material is quantified in Table 1.

5.0.2 The finds assemblage is considered to hold mixed potential for publication. The prehistoric pottery assemblage is not large; however, it does contain two new forms (Vessels 1 and 2) that should be illustrated if a note were to be produced for publication on the prehistoric activity. The later material is considered to hold no potential for further analysis and is recommended for discard.

Table 1: The Finds

Context	Pottery (by date group)	Flint*	Ceramic Building Material	Other	Deposit Date
Spoilheap	-	Flint 1/37 FF 2/156g	Peg tile 1/34g	Shell 1/3g Glass 3/84g	C19th – mid 20 th
Metal detector	1750-1900+: 3/12g	-	Drain 1/64g	Mortar 1/16g Metal 9/46g Coin 1	Mixed: C19th – late 20 th
2	1750-1900+: 15/444g	Flint 50/799g FF 14/378g	Peg tile 2/34g Floor tile 1/278g Wall tile 4/204g Coving tile 2/276g	Stone 1/36g Asbestos 1/32g Shell 7/52g Glass 5/128g	Prehistoric with intrusive C19th/20 th
8	LBA: 6/81g	Flint 3/71g FF 8/409g	-	Shell 1/2g	LBA: c. 900BC
9	LBA: 10/24g LIA/ERB: 1/1g	Flint 21/287g FF 50/745g	-	-	LBA: c. 900BC (?intrusive LIA?ERB)
10	LBA: 3/18g	Flint 2/11g FF 5/109g	-	-	LBA: c. 900BC
11	LBA: 5/61g LIA/ERB: 1/8g	Flint 3/163g FF 3/204g	-	-	LBA: c. 900BC (?intrusive LIA?ERB)
12	LBA: 21/397g	Flint 2/99g FF 15/835g	-	-	LBA: c. 900BC
13	LBA: 13/75g	18/367g FF 47/1384g	-	-	LBA: c. 900BC

Quantification of finds (Number/weight in grams) Key: LBA = Late Bronze Age (c. 1150-500BC); LIA-ERB = Late Iron Age to Early Roman (c. 100BC – 50AD) * FF = Fire-fractured flint

5.1 The Prehistoric Pottery by Mike Seager Thomas

5.1.1 The prehistoric pottery assemblage consists of 60 sherds weighing 665 grams (Tables 1 and 2). It is dominated by a suite of six sparsely flint tempered fabrics ranging in grade from fine to coarse, characteristic of the county's Late Bronze Age post Deverel-Rimbury pottery tradition (Table 2). A date in the middle of this tradition (*c.* 900 cal BC) is suggested for it by, on the one hand, the high proportion of fine to coarse wares in it, a characteristic usually associated with later post Deverel-Rimbury assemblages, and on the other, the absence from it of a distinct glauconitic fabric which first appears towards the end of the tradition²⁵. A close group parallel for it was recovered from Shinewater Park, Eastbourne. Similar fabrics are also present in the assemblage from nearby Castle Hill, Newhaven.

Table 2: Prehistoric pottery by fabric

Context	Fabrics							
	<i>FF</i>	<i>FMF</i>	<i>MF</i>	<i>MCF</i>	<i>MCFG</i>	<i>CF</i>	<i>G</i>	<i>Q</i>
	Number of sherds/ weight in grams							
8				1/20 (W)	5/61 (R)			
9		9/20 (B & R)		1/4 (W)				1/1 (W)
10	1/11 (B)		1/3 (W)	1/4 (W)				
11	4/34 (B) Vessel 1					1/27 (R)	1/8 (W)	
12	9/36 (B) Vessel 2	4/6 (B)	7/282 (R) Vessel 3	1/73 (W)				
13					13/75 (R)			
Totals	14/81	13/26	8/285	4/101	18/136	1/27	1/8	1/1
<i>FF</i> = fine flint temper; <i>FMF</i> = fine to medium flint temper; <i>MF</i> = medium flint temper; <i>MCF</i> = medium to coarse flint-temper; <i>MCFG</i> = (?) groggy medium to coarse flint temper; <i>CF</i> = coarse flint temper; <i>G</i> = grog temper; <i>Q</i> = (quartz) sandy; B = burnished; R = roughly finger finished; W = surface finish not determined owing to heavy weathering or abrasion								

²⁵ Seager Thomas, M. 2008. From potsherds, to people: Sussex prehistoric pottery, *Sussex Archaeological Collections* **146**, 19-51.

5.1.2 Overall the assemblage adds little to our knowledge of the post Deverel-Rimbury tradition, or to the period to which it belongs, but it is worth noting that of the three reconstructable forms present (Vessels 1 to 3: Table 3), two, both of them fine wares, are new to the county (Vessel 1 and Vessel 2) — the first wholly, the second in terms of its decoration, which has not hitherto been seen on a pot of this form (Table 3). This importantly emphasises the flexibility of the post Deverel-Rimbury potter.

Table 3: Prehistoric vessels of note.

Pot number	Fabric	Typology
Vessel 1	<i>FF</i> (B)	Out-turned rim and upper body of thin-bodied (?) wide furrowed shouldered jar or bowl
Vessel 2	<i>FF</i> (B)	Out-turned rim and upper shoulder of (?) bi-partite bowl, the latter decorated with fine diagonal or curving lines
Vessel 3	<i>MF</i> (R)	Pinched, heavily-gritted base

5.1.3 In addition the assemblage incorporates two fabrics, represented by one weathered sherd each, of uncertain date: wholly grog tempered *G* and sandy *Q*. While neither is characteristic of the tradition in Sussex, a post Deverel-Rimbury attribution is not out of the question, for both are common on the near continent at this period. On the other hand analogous fabrics are commonly associated with Later Iron Age and Early Roman traditions *locally*. There is a conflict therefore between their associations on site — wholly post Deverel-Rimbury — and regionally — wholly later. It is considered most likely that these two sherds represent intrusive material of Late Iron Age or Early Roman date.

5.2 The post-Roman Pottery by Luke Barber

5.2.1 A small assemblage of 19th century pottery was recovered from the site. All of this material consists of small, abraded sherds suggesting the material has been subjected to reworking. The earliest sherd was recovered from unstratified deposits during the metal detecting and consists of a small fragment of transfer-printed pearlware probably dating to the early 19th century.

5.2.2 More general 19th century were recovered from Context 2 – single English stoneware and glazed red earthenware sherds. The refined white earthenware sherd from Context 2 is likely to be of late 19th or early 20th century date. The remaining pottery from the site (two sherds during metal detecting and 12 from Context 2) all consist of glazed and unglazed fragments of pottery made by pupils of the school in the later 20th century.

5.3 The Building Material by Luke Barber

- 5.3.1 The three peg tile fragments recovered are all well formed and fired, typically tempered with sparse fine sand and occasional iron oxides to 1mm. A 19th to early 20th century date is probable. Fragments of moulded hard-fired brown floor tile, white glazed wall tiles and green glazed coving tiles were all recovered from Context 2. These are all of 20th century date.
- 5.3.2 The only other finds consist of a fragment of 19th century Welsh roofing slate and a piece of 20th century corrugated asbestos sheeting.

5.4 Prehistoric Flintwork by Chris Butler

- 5.4.1 An assemblage of 107 pieces of worked flint weighing 2.044kg was recovered during the fieldwork (Table 4), together with 142 pieces of fire-fractured flint weighing 4.22kg. Another 73 pieces (143g) of fire-fractured flint were recovered from the soil samples. The assessment comprised a visual inspection of each bag, counting the number of pieces of each type of worked flint present, noting details of the range and variety of pieces, general condition, and the potential for further detailed analysis. Classification follows Butler²⁶. A hand written archive of the assemblage was produced at this stage. Those pieces of flint that were obviously not worked were discarded during the assessment.
- 5.4.2 The raw material predominantly comprised a typical range of nodular Downburied soil flint. Most of the flint was a grey to black colour, but there were a number of pieces of blue- grey or white patinated flint, and a few pieces of beach pebble flint.

Table 4: The flintwork

Hard hammer-struck flakes	68
Soft hammer-struck flakes	10
Soft hammer-struck blades	2
Flake/blade fragments	22
Shattered piece	2
Chip	1
Cores	1
Core fragment	1
<i>Total</i>	<i>107</i>

²⁶ Butler, C. 2005 *Prehistoric Flintwork*, Stroud, Tempus Publishing Ltd

- 5.4.3** A small number of soft hammer-struck flakes, together with two soft hammer-struck blades are present, a few of which do have evidence for platform preparation and together with the two-platform flake core provide evidence for a systematic core reduction processes. These pieces are predominantly Early Neolithic in date, but one or two pieces may be Mesolithic.
- 5.4.4** Earlier work at the site²⁷ found traces of Mesolithic occupation comprising a range of flintwork including both debitage and implements. Only four pieces of flintwork in the current assemblage can be assigned a Mesolithic date with any certainty, all of which are residual in the topsoil (Context **2**) or the remnant buried soil (Context **13**).
- 5.4.5** The majority of the assemblage comprises hard hammer-struck flakes, most of which have no evidence for any platform preparation or knapping strategy, and are mostly large and often broken or have hinge fractures. No formal tools were recovered during the fieldwork, although one of the hard hammer-struck flakes from the remnant buried soil (Context **13**) has a notch, and one or two of the longer flakes have the appearance of having been utilised. These pieces are typical of the later prehistoric flintworking that occurred in the Later Neolithic or Bronze Age, and therefore would not be out of context with the Later Bronze Age activity on the site.
- 5.4.6** The three fills of Cut **7** (Contexts **8**, **10**, **11** & **12**), produced a small group of flintwork comprising nine hard hammer-struck flakes six flake fragments, a chip and a shattered piece, together with 104 pieces of fire-fractured flint (73 from the soil samples). The clean up over the top of the ditch (Context **9**) produced a further 15 flakes (including three possible soft hammer-struck flakes), five fragments and a shattered piece, together with 50 pieces of fire-fractured flint. None of these pieces could be refitted, and they were all probably residual in this context, although possibly associated with activity taking place in the immediate surrounding area.
- 5.4.7** There was a large assemblage of fire-fractured flint comprising 142 pieces weighing 4.22kg. These pieces varied in size, and had an average weight of 30gms, with those from the ditch (Contexts **8**, **10**, **11** & **12**) having an average weight of 50gms, whilst those found during the clean-up (Context **9**) were much smaller weighing on average 15gms each. The pieces from the remnant buried soil (Context **13**), also had an average weight of 30gms. Another 73 pieces (143g) of fire-fractured flint were recovered from the soil samples, having an average weight under 2gms. The fire-fractured flint may have derived either from nearby cooking activity, or was being crushed for use as an inclusion in the pottery.

²⁷ Bell, M.G. 1974 'Tideway School, Newhaven', *Sussex Archaeological Collections* **112**, 158-9.

5.4.8 This assemblage is too small for any meaningful further analysis, and lacks any implements or diagnostic pieces. Although most pieces of flintwork could be associated with the Later Bronze Age activity at the site, these only occur in small numbers from numerous individual contexts, thus making it difficult to draw any meaningful conclusions.

5.4.9 It is recommended that no further detailed work be undertaken on this assemblage, although the flintwork should be retained for possible further study in the future. This report should be included in the report along with the table of flintwork, and the handwritten assessment summary retained in the archive.

5.5 Other finds by Chris Butler

5.5.1 A small group of glass comprising eight pieces was recovered from Context **2** and the spoil. Apart from a single piece of window glass, the remaining pieces all derived from bottles. Three pieces of dark green bottle glass, including a base with a shallow kick-up, from Context **2** were from later 19th century mineral water bottles. The other bottle glass comprised a fragment from a brown (beer) bottle, and three fragments from a clear glass (milk) bottle, all of 20th century date.

5.5.2 A number of fragments of marine mollusc shell were found during the work. A single small fragment of oyster shell came from Context **8**, whilst Context **2** produced five fragments of oyster and two of scallop.

5.5.3 The metal artefacts were recovered from the spoil with the aid of a metal detector, and comprised a number of ring-pulls from aluminium drink cans, iron nails and pieces of wire. All were of 20th century date. A single coin was also recovered from the spoil with the metal detector: QEII 1977 One Pence.

5.6 Environmental Samples by Chris Butler

5.6.1 Soil samples were taken from the three fills of the feature Ditch **7**. Each sample comprised of a single tub of 5 litres size (Contexts **10** & **11**), except for the primary fill of the feature (Context **12**) which was of 10 litres.

5.6.2 The samples were processed using bucket floatation, with the residue being washed through a 1mm mesh sieve. Once the residues were dry they were sorted by eye to extract material of archaeological and environmental interest. A magnet was also used to retrieve magnetic iron fragments from the residues, although none were found. The results are shown in Table 5.

Table 5: Environmental Samples

Context	Modern Roots	Animal Bones	Charcoal	Seeds	Residue
10	-	-	*	-	Pottery Flintwork FF Flint
11	-	-	-	-	Pottery Flintwork FF Flint
12	-	-	*	-	Flintwork FF Flint

Frequency Key: None - ; Very low * ; Low ** ; Moderate *** ; High ****

5.6.3 No animal bone, land or marine shell or seeds were found in any of the samples, and minimal amounts of charcoal were recovered from the samples from Contexts **10** and **12**. There was no contamination from modern roots.

5.6.4 The residues produced small quantities of pottery, flintwork and fire-fractured flint. Context **10** produced four sherds of LBA pottery (5g), four pieces of worked flint and 59 small pieces of fire-fractured flint (53g). Context **11** produced six small fragments of LBA pottery (4g), one piece of worked flint and three pieces of fire-fractured flint (2g). Context **12** produced two pieces of worked flint and 11 pieces of fire-fractured flint (88g). The flintwork has been incorporated into the main report above.

6.0 Discussion

- 6.1** Two prehistoric features were discovered during the archaeological watching brief at Tideway School, Newhaven. These comprised the terminus of a ditch (Context 7), and areas of manganese rich soil which were interpreted as a remnant buried soil (Context 13). These both produced pottery and flintwork suggesting a Late Bronze Age date (c. 900BC).
- 6.2** In the confines of the footings trench it was very difficult to determine if the feature (Context 7) was a pit or the terminus of a ditch. However the regular fills within the feature are more suggestive of a ditch than a pit. All three of the fills of the feature produced Late Bronze Age pottery sherds, whilst the flintwork was entirely debitage, with no implements being found.
- 6.3** In 1973 during the construction of a new gymnasium, immediately to the east of the present site, a Bronze Age cremation was discovered. This comprised the remains of a pottery vessel, burnt bone and fire cracked flint, and was thought to have come from the site of a Bronze Age barrow, although no trace of a ditch was found²⁸. There is a possibility that the feature found in these excavations was the ditch to the possible barrow or on the other hand could have been a Bronze Age boundary ditch. However, no continuation of the ditch was seen within the monitored area
- 6.4** The area of manganese rich soil (Context 13) also produced sherds of Late Bronze Age pottery and both pieces of fire cracked and worked flint, and would appear to be the remnants of a prehistoric buried soil. This was also apparent in 1973 when Bell noted a dark layer in one of the sections, and suggested it was a buried soil²⁹.
- 6.5** The only other artefacts recovered from the ditch fills were two sherds of pottery dating to the Late Iron Age/Early Romano British period, these were most likely intrusive. There were also four pieces of human struck flint that could be assigned to the Mesolithic period, these were all recovered from the topsoil (Context 2) and the prehistoric buried soil (Context 13). All other artefacts were 19th or 20th century topsoil finds.
- 6.6** Evidence from this work and other excavations in the vicinity of the site³⁰, point to Mesolithic and later Bronze Age activity, with some Romano-British, Medieval and Post Medieval use, perhaps due to agriculture. The most intensive activity appears to be concentrated in the Late Bronze Age (c.900BC) when the site was possibly a focus for burial or some other function.

²⁸ Bell, M. G. 1974 'Tideway School, Newhaven', *Sussex Archaeological Collections* 112, 158

²⁹ Ibid

³⁰ Birbeck, V. 2000 Harbour Heights, Newhaven: Phase 2 Archaeological Evaluation, Wessex Archaeology 47648.2

6.7 The watching brief can be judged to have been 100% successful as the archaeological features present were identified and recorded, with little chance of anything having been missed due to the methodologies employed.

7.0 Acknowledgements

7.1 I would like to thank Rob Beasey of The Hamson Partnership Ltd for making all the arrangements for the watching brief, and Roy Billingham of Tideway School, for his assistance during the watching brief. I would also like to thank Fowler Building Contractors, especially Neil Smith, for their co-operation and assistance on site.

7.2 We would also like to thank Mike Seager Thomas for reporting on the Prehistoric pottery, Luke Barber for the later pottery and ceramic building material, Chris Butler for reports on the prehistoric flintwork and other finds, and Jane Russell who prepared the drawings for the report. The artefacts were processed by Rachel Butler. The project was managed by Chris Butler for CBAS Ltd and Greg Chuter monitored the project for ESCC.

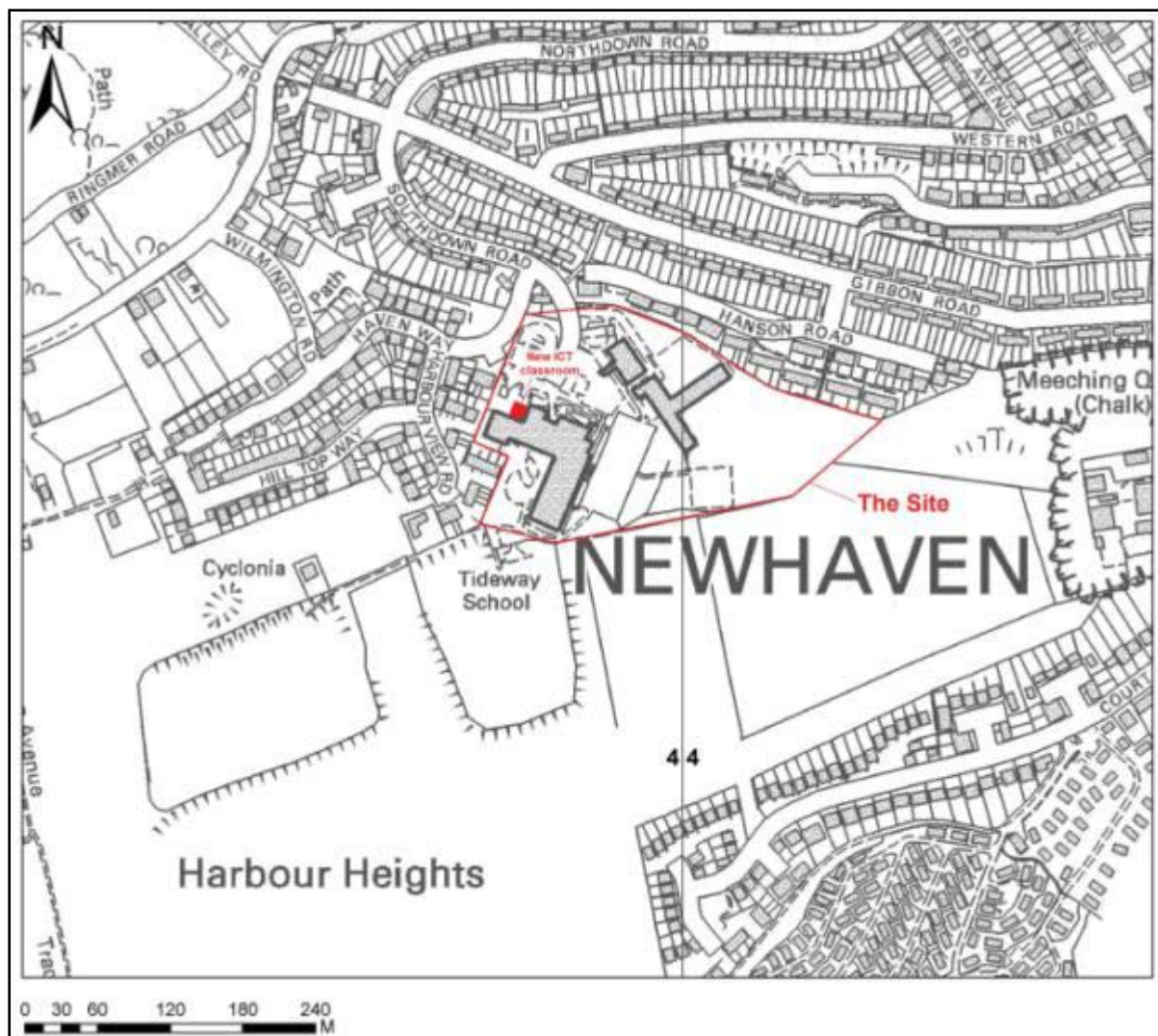


Fig. 1: Tideway School, Newhaven: Location of Site
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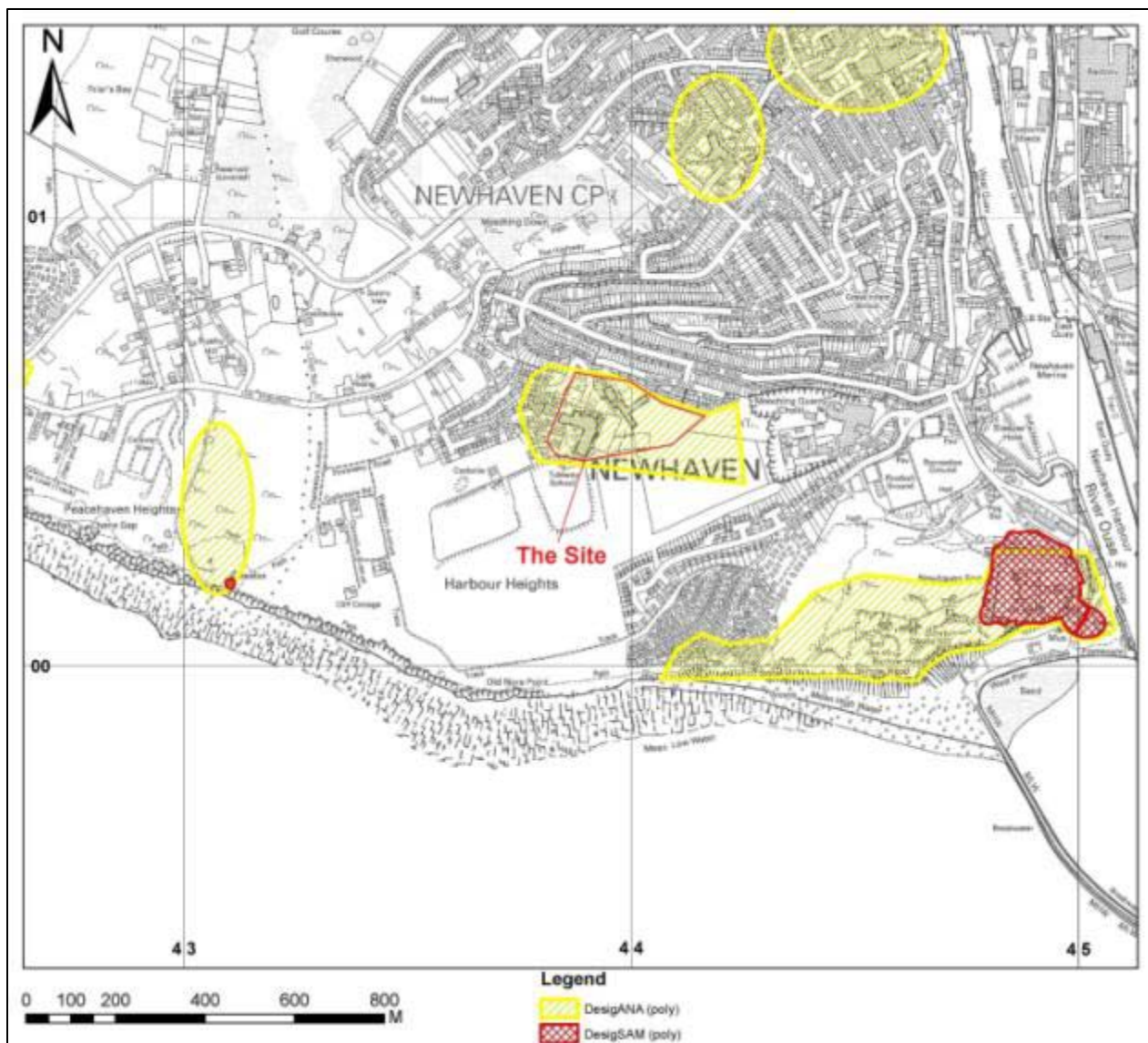


Fig. 2: Tideway School, Newhaven: Archaeological Notification Area
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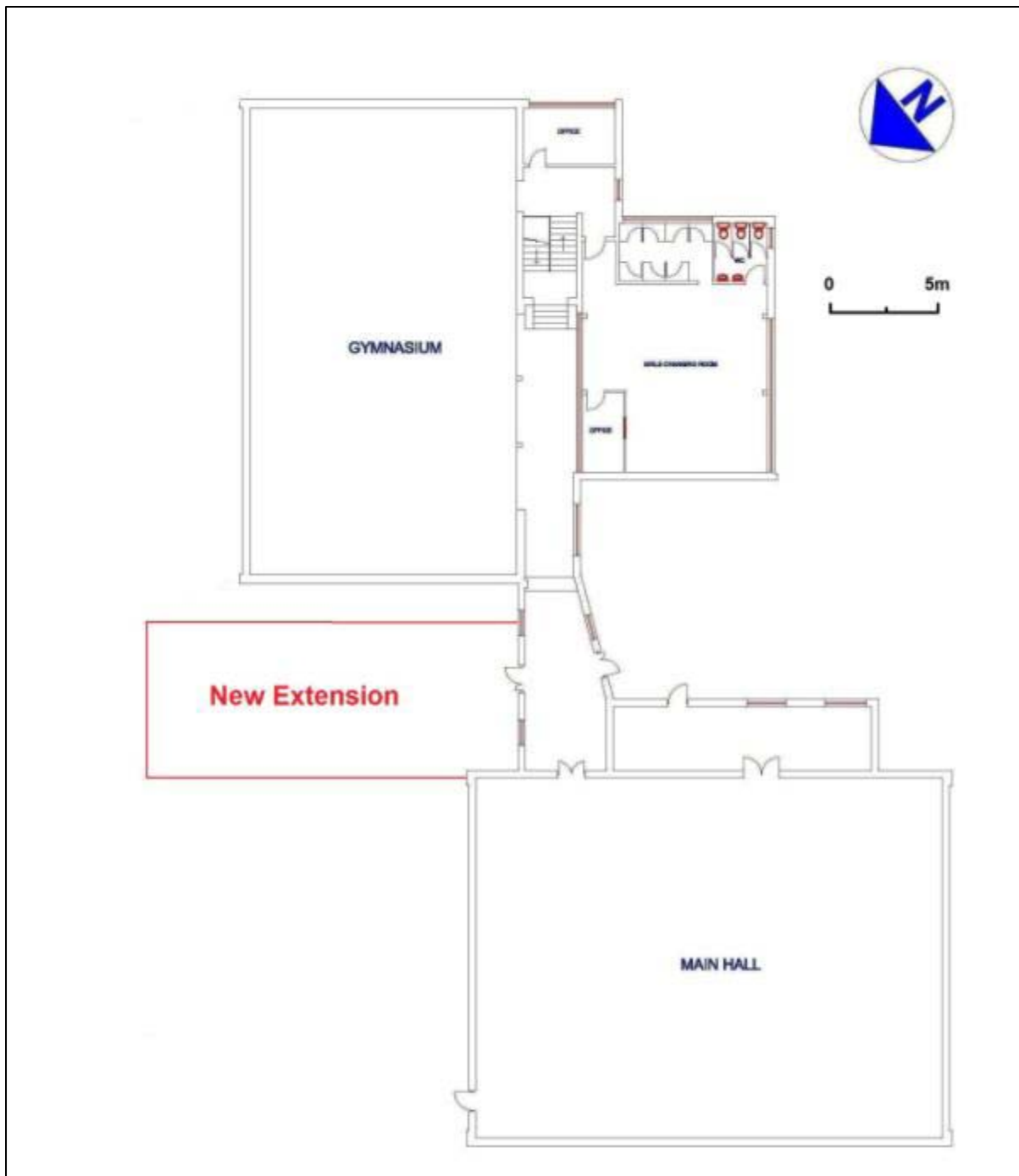


Fig. 3: Tideway School, Newhaven: Plan of site showing location of new classroom
Adapted from architects drawing

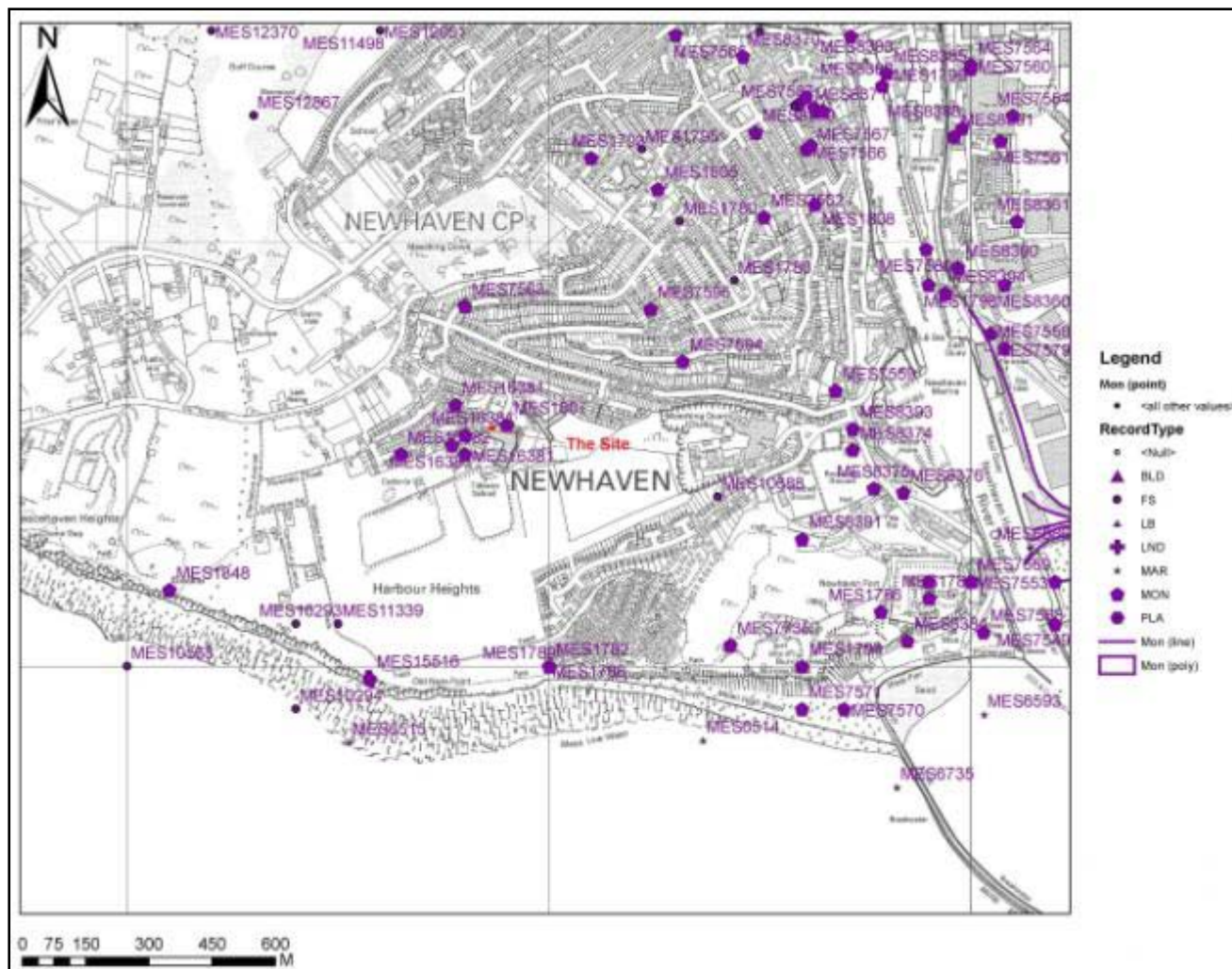


Fig. 4: Tideway School, Newhaven: Monuments on the HER
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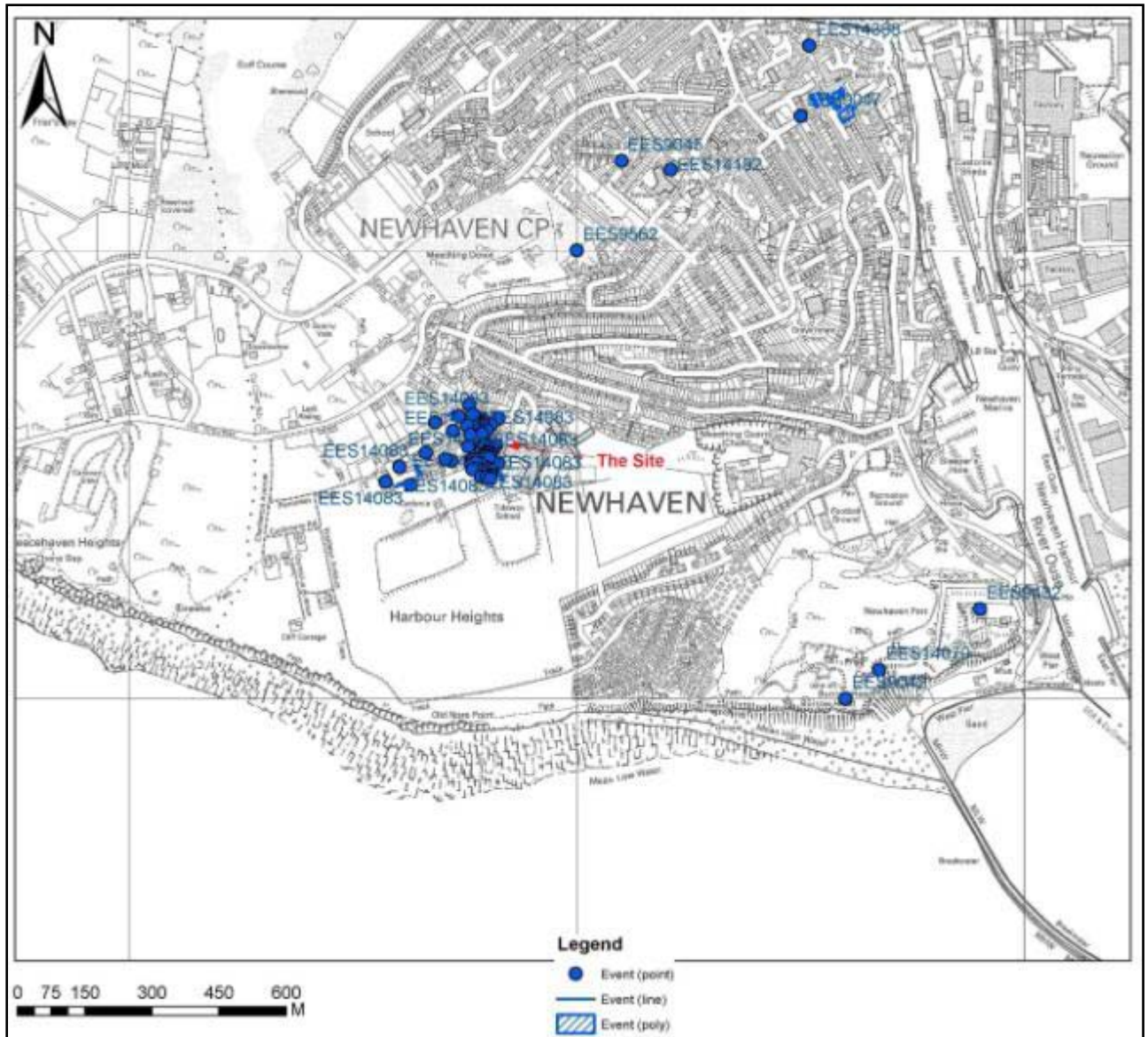


Fig. 5: Tideway School, Newhaven: Events on the HER
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Fig. 6: Tideway School, Newhaven: Tithe Map (1838)
(Adapted from map provided by ESCC)

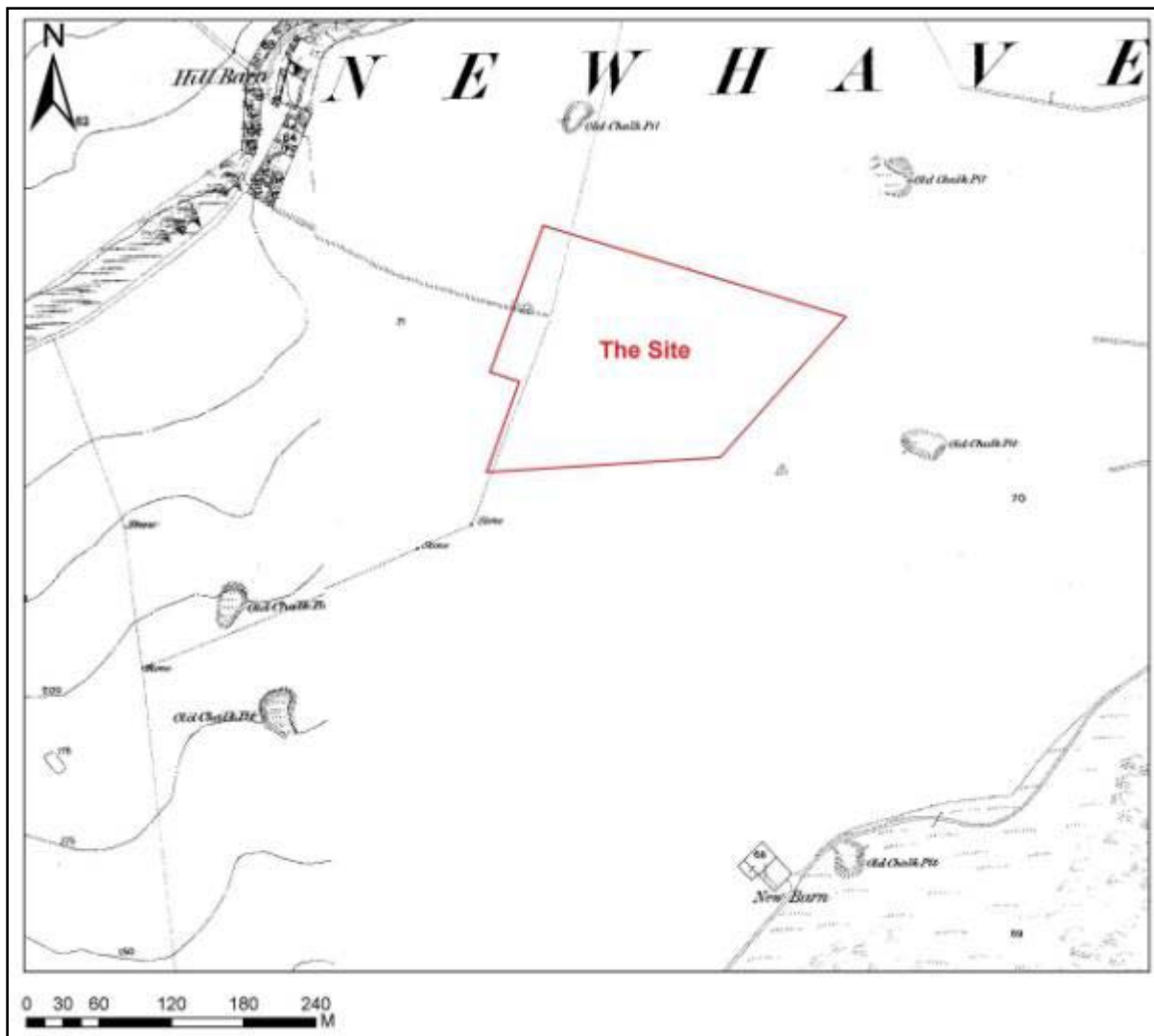


Fig. 7: Tideway School, Newhaven: 1st Edition OS Map (1875)
(Adapted from map provided by ESCC)

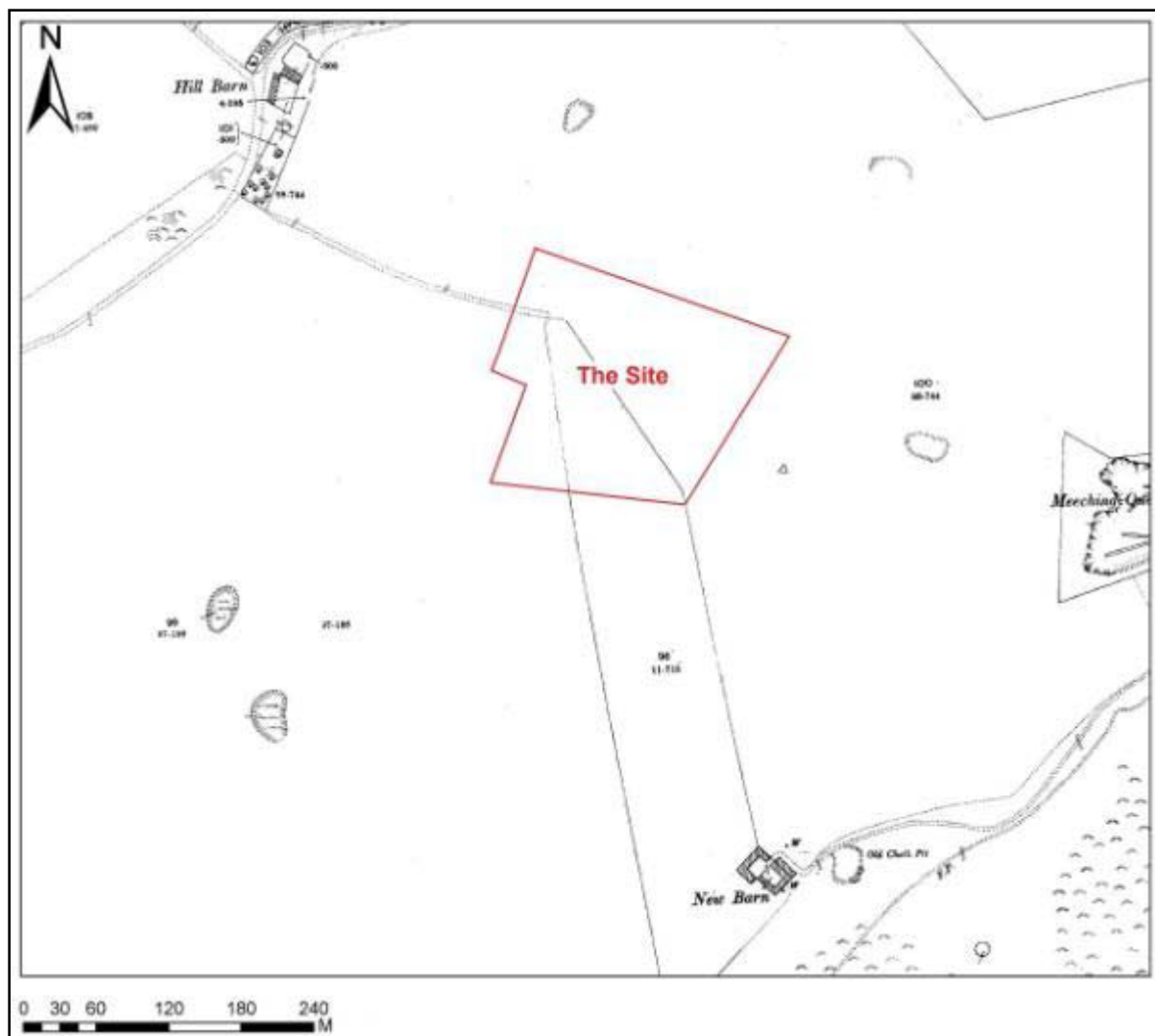


Fig. 8: Tideway School, Newhaven: 2nd Edition OS Map (1899)
(Adapted from map provided by ESCC)

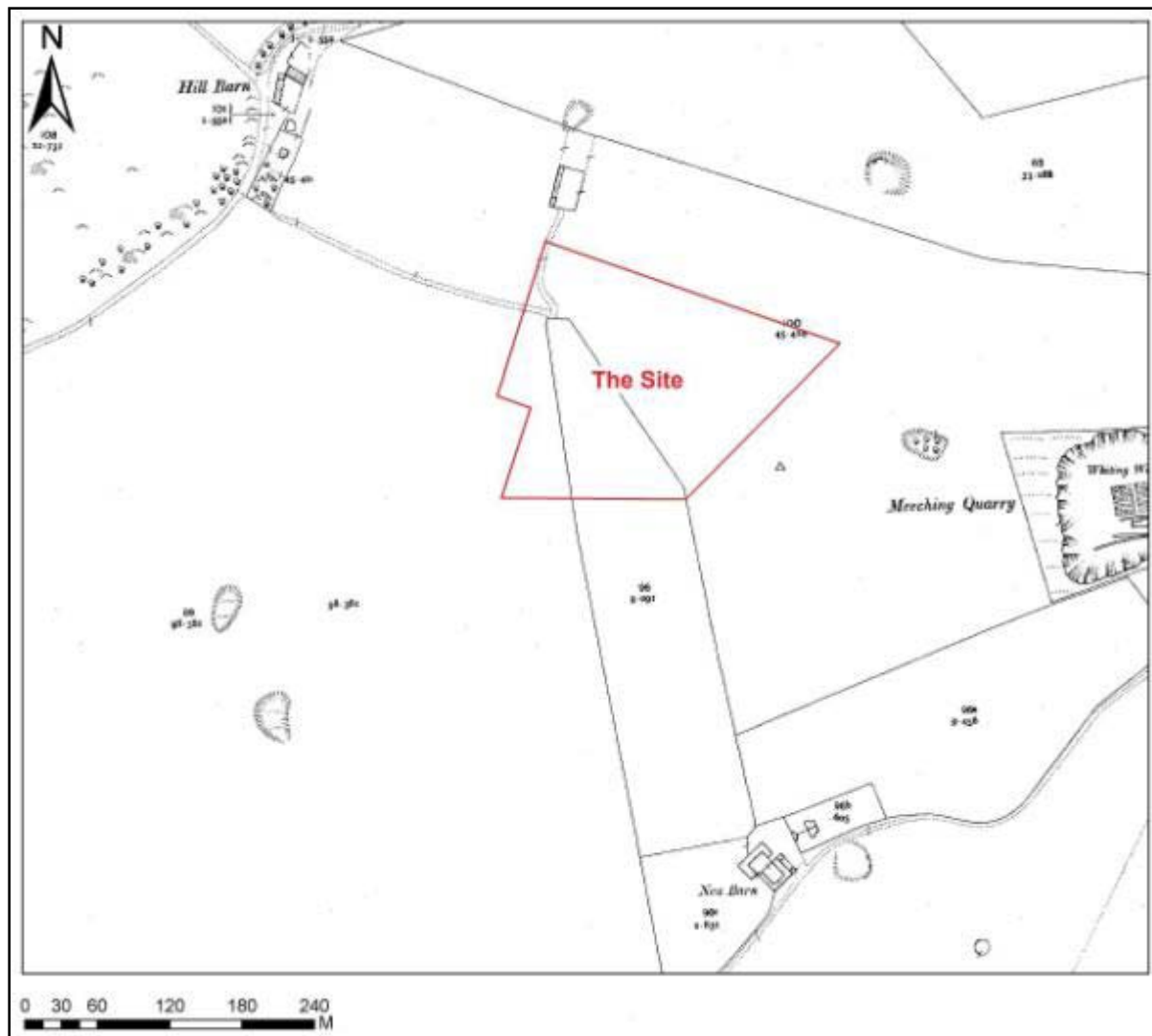


Fig. 9: Tideway School, Newhaven: 3rd Edition OS Map (1911)
(Adapted from map provided by ESCC)

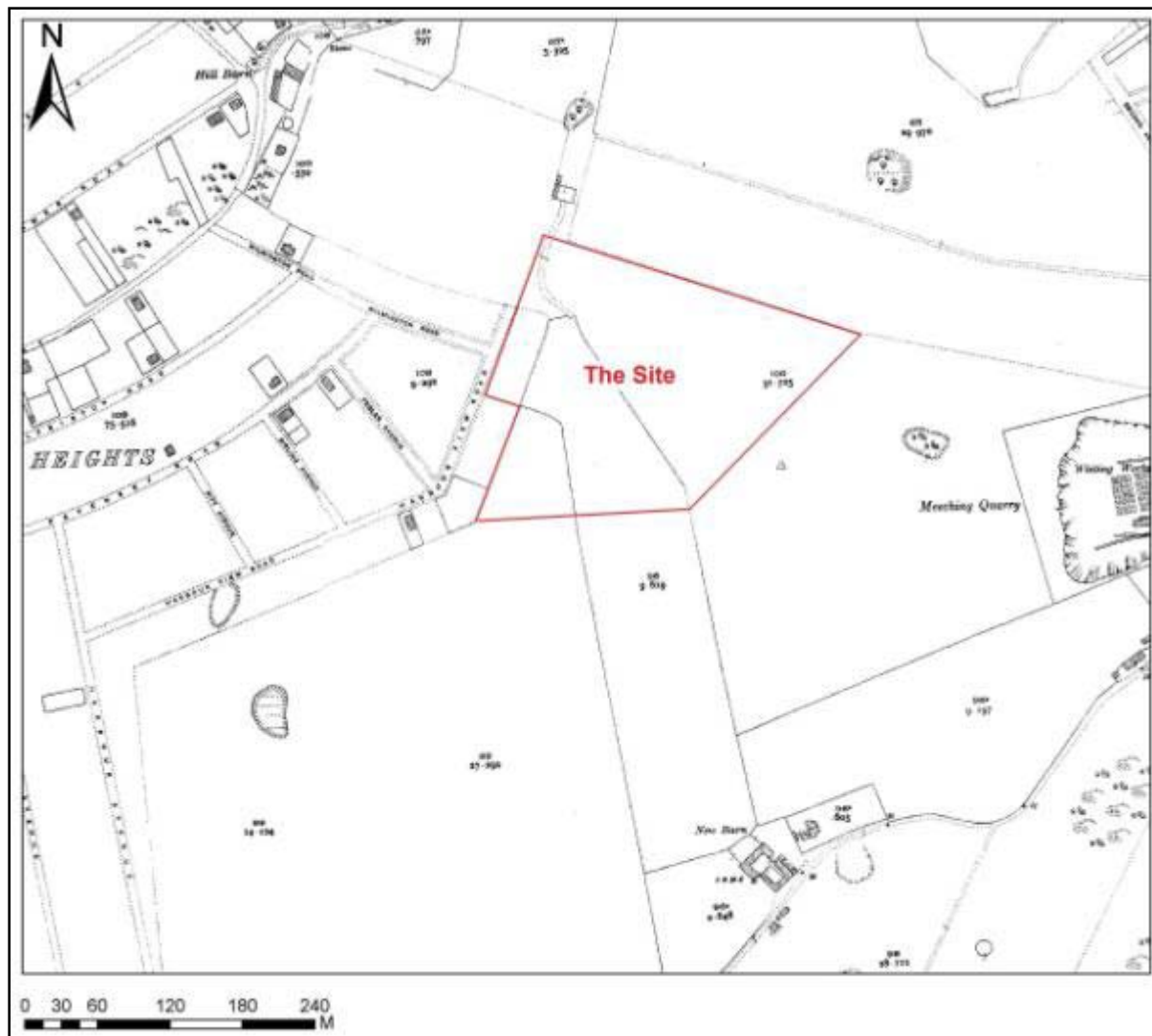


Fig. 10: Tideway School, Newhaven: 4th Edition OS Map (1938)
(Adapted from map provided by ESCC)

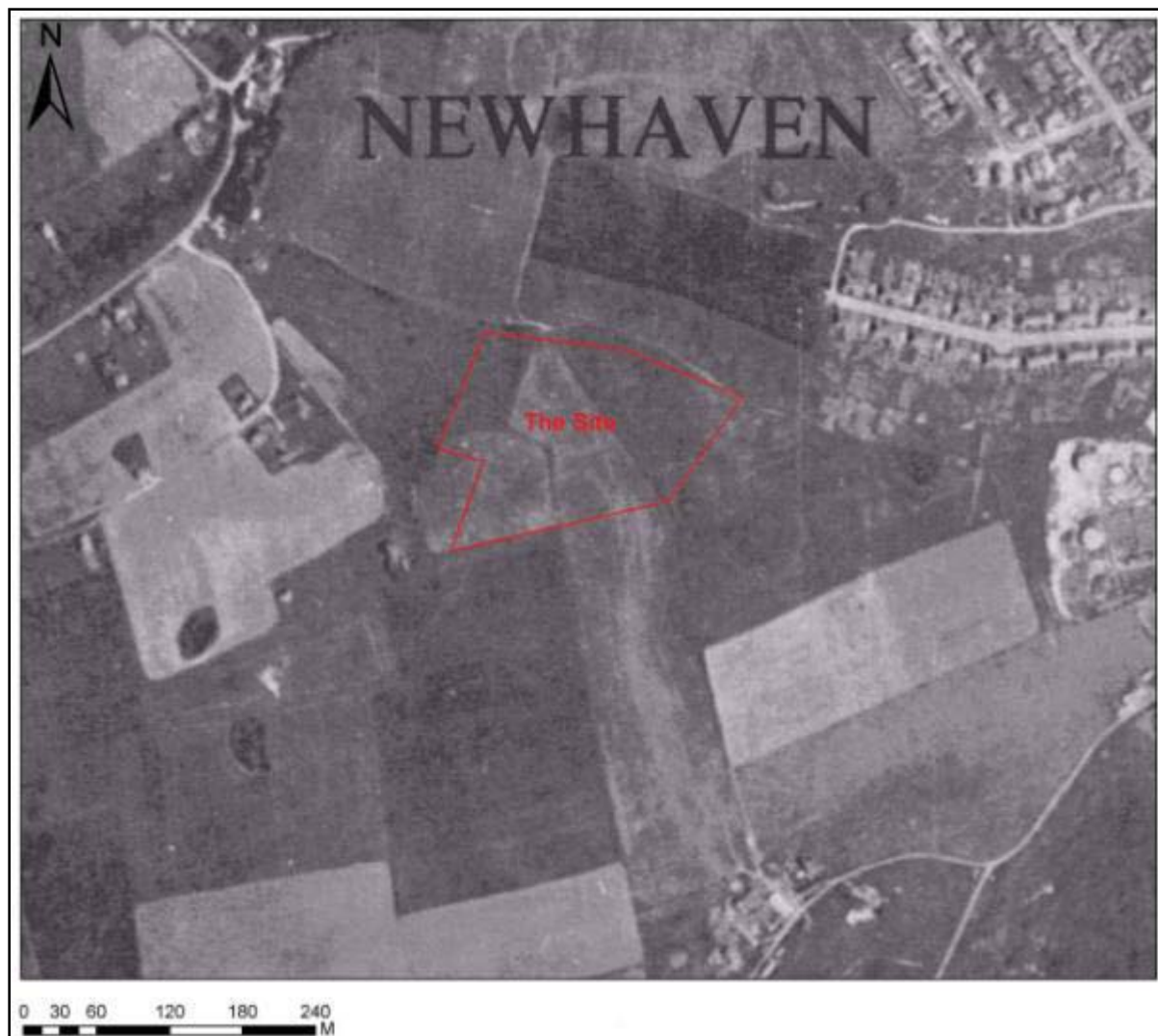


Fig. 11: Tideway School, Newhaven: 1947 Aerial photograph
(Adapted from photograph provided by ESCC)

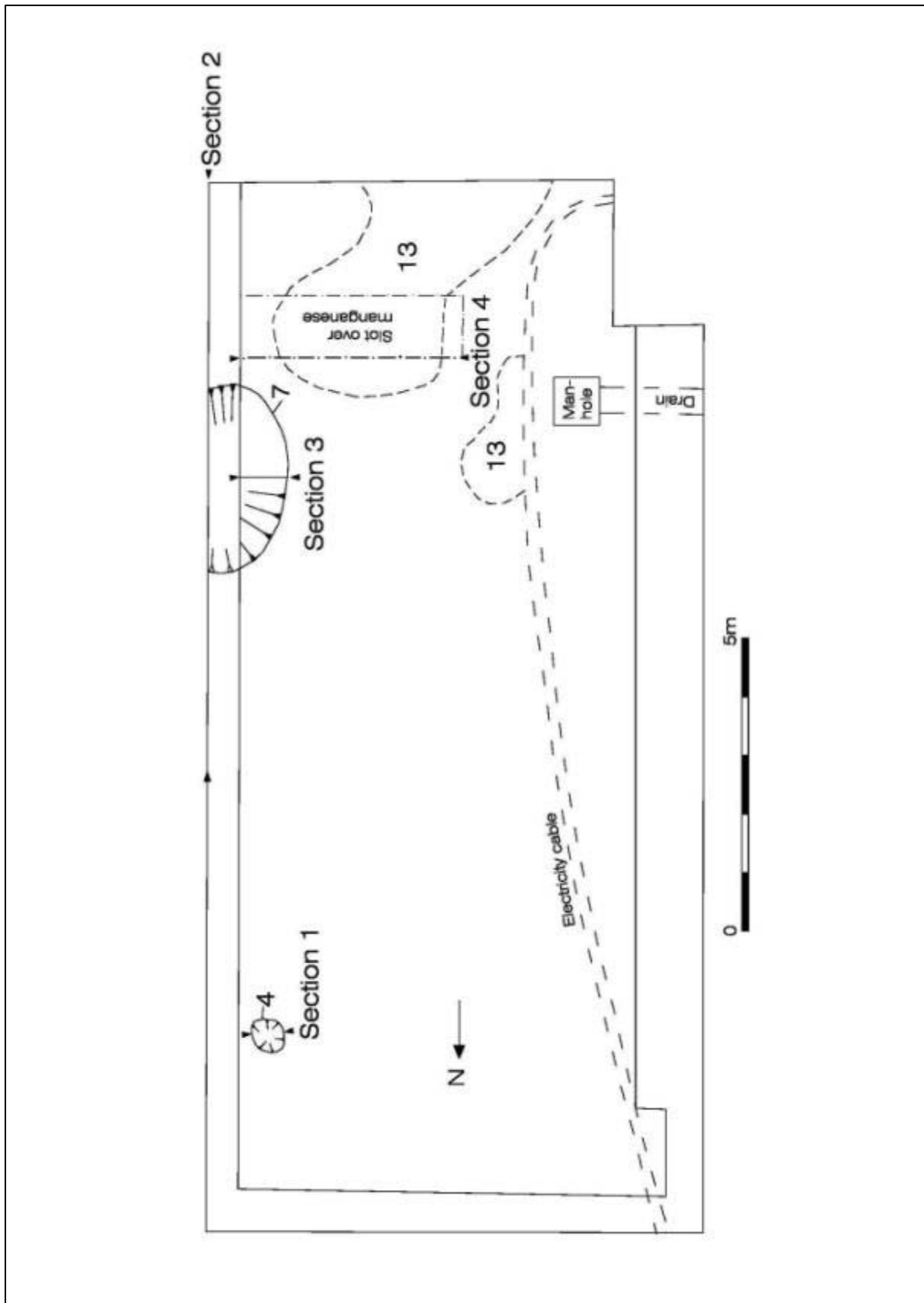


Fig. 12: Tideway School, Newhaven: Site Plan

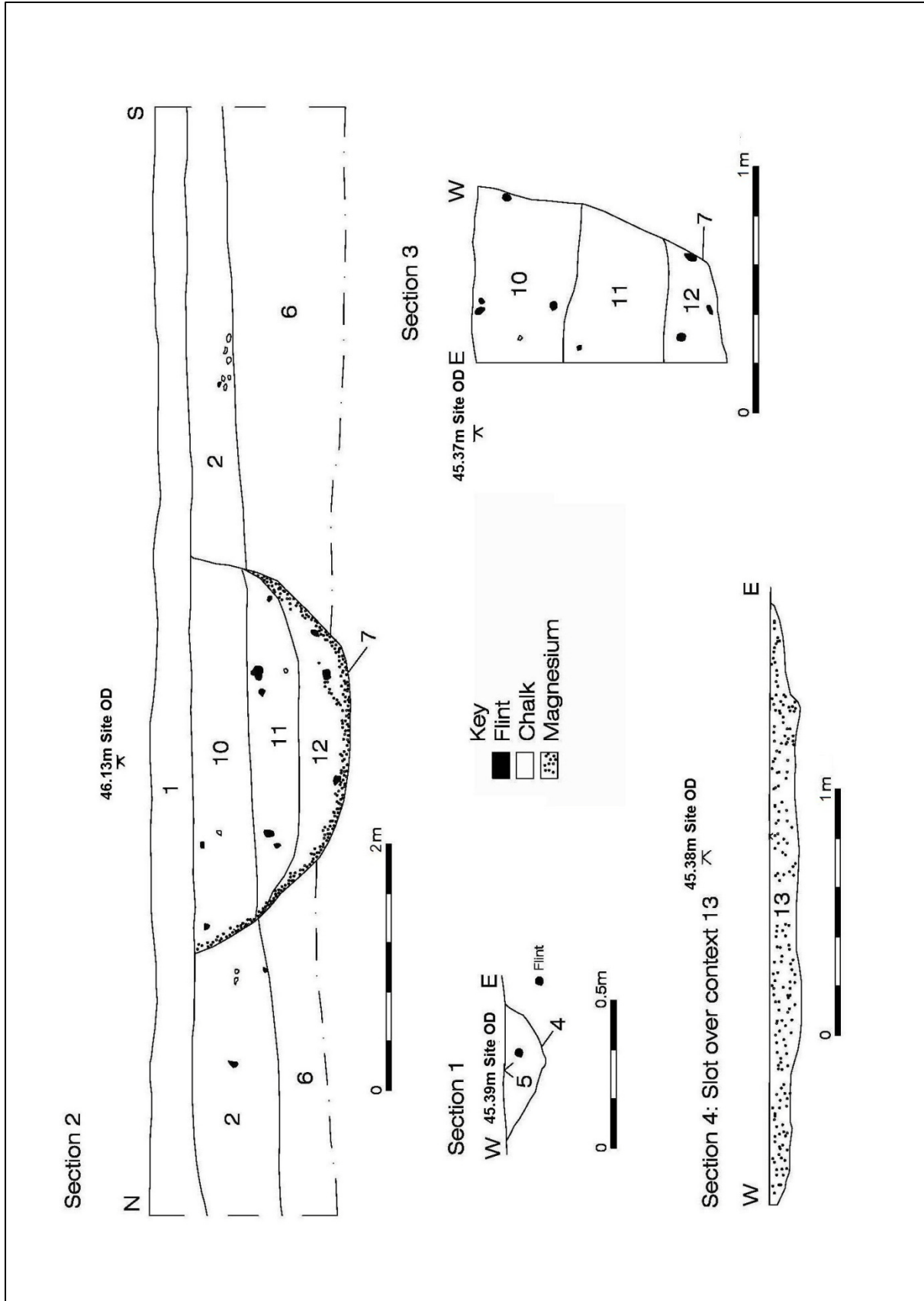


Fig. 13: Tideway School, Newhaven: Sections



Fig. 14: Tideway School, Newhaven: General view of south end of site



Fig. 15: Tideway School, Newhaven: Section of footing trench showing LBA ditch

Appendix I: Context List

Context No	Type	Description	Fill of	Filled by	Other relationships
1	Deposit	Topsoil			Above 2
2	Deposit	Subsoil			Below 1 Above 6
3	Deposit	Layer of MOT			Above 2
4	Cut	Shallow scoop		5	Cut into 2 Filled by 5
5	Fill	Fill of scoop	4		Fill of 4
6	Deposit	Natural			Below 2
7	Cut	Ditch		8.10.11.12	Cuts 2 and 6
8	Fill	Fill of ditch	7		Fill of 7 Same as 10.11 & 12
9	Deposit	Clean up over 7			Above 7
10	Fill	Fill of Ditch	7		Upper fill of 7 secure finds recovery
11	Fill	Fill of Ditch	7		Fill between 10&12 secure finds recovery
12	Fill	Fill of Ditch	7		Primary fill of 7 secure finds recovery
13	Deposit	Prehistoric buried soil			Below 2 & 9

Appendix II HER Summary Form

Site Code	TSN 10					
Identification Name and Address	Tideway School, Southdown Road, Newhaven, East Sussex					
County, District &/or Borough	East Sussex County Council					
OS Grid Refs.	TQ 43870 00576.					
Geology	Woolwich and Reading Beds with Tarrant Chalk and then Newhaven Chalk to the south and east of the site.					
Type of Fieldwork	Eval.	Excav.	Watching Brief X	Standing Structure	Survey	Other
Type of Site	Green Field	Shallow Urban X	Deep Urban	Other		
Dates of Fieldwork	Eval. 13 – 16 07/10	Excav.	WB.	Other		
Sponsor/Client	Hamson Partnership Ltd for Tideway School,					
Project Manager	Chris Butler MIFA					
Project Supervisor	Keith Butler PIFA					
Period Summary	Palaeo.	Meso. X	Neo. X	BA X	IA X	RB
	AS	MED	PM X	Other		
<p>100 Word Summary.</p> <p><i>An archaeological watching brief was maintained during the groundworks for a new ICT classroom at Tideway School, Newhaven on the 13th to 16th July 2010. The watching brief recorded a ditch terminal or pit which produced an interesting assemblage of Late Bronze Age pottery (c.900BC) and flintwork. A remnant buried soil also produced Late Bronze Age pottery (c.900BC) and flintwork, whilst a small amount of Mesolithic flintwork and LIA/RB pottery hinted at activity in other periods.</i></p>						

Chris Butler Archaeological Services Ltd

Chris Butler has been an archaeologist since 1985, and formed the Mid Sussex Field Archaeological Team in 1987, since when it has carried out numerous fieldwork projects, and was runner up in the Pitt-Rivers Award at the British Archaeological Awards in 1996. Having previously worked as a Pensions Technical Manager and Administration Director in the financial services industry, Chris formed **Chris Butler Archaeological Services** at the beginning of 2002.

Chris is a Member of the Institute of Field Archaeologists, a committee member of the Lithic Studies Society, and is a part time lecturer in Archaeology at the University of Sussex. He continues to run the Mid Sussex Field Archaeological Team in his spare time.

Chris specialises in prehistoric flintwork analysis, but has directed excavations, landscape surveys and watching briefs, including the excavation of a Beaker Bowl Barrow, a Saxon cemetery and settlement, Roman pottery kilns, and a Mesolithic hunting camp.

Chris Butler Archaeological Services Ltd is available for Flintwork Analysis, Project Management, Military Archaeology, Desktop Assessments, Field Evaluations, Excavation work, Watching Briefs, Field Surveys & Fieldwalking, Post Excavation Services and Report Writing.

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